Extreme Heat and Wildfire Smoke Action Plan

BC HOUSING

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Acknowledgement

BC Housing acknowledges that we deliver our services across the ancestral, traditional, and unceded homelands of hundreds of First Nations, each with their own unique histories, cultures, and traditions. We offer our commitment to working in good relations and to implementing the province's Declaration on the Rights of Indigenous Peoples Act (DRIPA) in all areas of our mandate.

Updates to BC Housing's extreme heat planning and response began following the extreme heat event in Summer 2021. Tragically, 619 people died across B.C. during this extreme heat event[1]. 54 of those people were housed in BC Housing funded, or directly managed, sites mostly in the Lower Mainland[2].

We offer our sincere and heartfelt condolences to all those who lost loved ones or were injured during the heat dome of 2021.

This Action Plan has been updated as of July 2023, to reflect the current status of activities and our commitment to taking action to address future extreme heat events.

Purpose and Scope

This document provides an overview of key priority areas, short and long-term actions, and timelines. These were established to ensure that BC Housing, as an organization, is prepared to support people living in the community housing sector and our partners so that:

- Community housing residents and homeless shelter clients are protected from the adverse effects of these events
- Non-profit housing providers have access to the tools and resources they may need
- New construction projects and existing buildings are more resilient to increases in extreme heat and wildfire smoke that are projected in the coming decades
- BC Housing evolves its role in supporting sector-wide and community readiness for extreme heat and wildfire smoke events

While wildfires also pose the additional risk of resident evacuations, that aspect is out of scope for this plan.

[1] https://www2.gov.bc.ca/assets/gov/birth-adoption-death-marriage-and-divorce/deaths/coroners-service/death-review-panel/extreme_heat_death_review_panel_report.pdf

[2] The BC Coroners Service report published on June 7 indicates 62 people died in SRO, social housing and supportive housing sites. BC Housing funds 46 sites where 54 people died. The remaining 8 people died at other sites not funded by BC Housing.

Background

Why We Need to Prepare

The accelerating impacts of climate change have been recognized for many years. In 2021 the unprecedented heat dome and uncontrolled wildfires made it clear that BC Housing needs strong and effective systems to respond to these types of events. Projections indicate they are likely to increase in frequency and severity in the coming years.

The World Weather Attribution Initiative estimates that with current emission levels, extreme heat events like the one in 2021 could occur once every 5 to 10 years by the 2040s[3]. Increased summer temperatures also contribute to a longer and more intense wildfire season, with broader geographical impacts.

This Extreme Heat and Wildfire Smoke (EHWS) Action Plan focuses on reducing the health risks from heat and poor air quality due to wildfire smoke, for people living in community housing, as well as, supportive housing and emergency shelters.

In June 2022, the BC Coroners Service released a report that identified 619 deaths related to the 2021 heat dome.[4] [5] This is the highest number of fatalities due to a natural hazard in Canadian history. It is critical to develop protective measures against heat-related death and illness in residential settings. The majority of those who died as a result of the 2021 heat dome were living in poverty, with a disability, living alone and over 55 years old. People of low income, and those who are marginalized are also more likely to live in urban heat islands, with less access to green space and trees. They are at increased risk for dangerous indoor temperatures as a result.

Actions To-Date

For more than four years, BC Housing has built internal capacity for EHWS planning and response. However, the urgency of this work increased dramatically with the extreme heat and wildfire events of summer 2021.

In July 2021, following the heat dome, BC Housing's Executive Committee set up BC Housing's Extreme Heat & Wildfire Smoke Emergency Operations Centre (EOC). The EOC took immediate actions – such as communication with the non-profit housing sector to bolster planning and response efforts, purchasing and distribution of cooling and air purifying equipment (air conditioners, air purifiers and fans), and risk mitigation plans for both new construction and building renovations and upgrades.

In October 2021, the Attorney General and Minister Responsible for Housing requested that BC Housing conduct a review of any possible heat-related deaths and injuries in both BC Housing managed and non-profit managed housing and provide recommendations for improvement. BC Housing received data from the BC Coroners Services at the end of January 2022 and conducted detailed analysis to inform our actions and recommendations (See: *Extreme Heat and Buildings: An Analysis of the 2021 Heat Dome Related Deaths in Community Housing in British Columbia, June 2022*[6]).

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[3] https://www.worldweatherattribution.org/western-north-american-extreme-heat-virtually-impossible-without-human-caused-climate-change/

[4] https://www2.gov.bc.ca/assets/gov/birth-adoption-death-marriage-and-divorce/deaths/coroners-service/statistical/heat_related_deaths_in_bc_knowledge_update.pdf. The BC Coroners Service has since published updated data on June 7, 2022, which is not reflected in this report.

[5] Note BCCDC using different methodology identified 740 heat related deaths for a similar time period (i.e. during and shortly after the heat dome.

[6] https://www.bchousing.org/sites/default/files/media/documents/Extreme-Heat-Report%2B2022.pdf

BC Housing's priority areas of work are also aligned with the recommendations arising from the BC Coroners Services' report on "Extreme Heat and Human Mortality: A Review of Heat-Related Deaths in B.C. in Summer 2021", published in 2022.

These recommendations are:

- Implement a coordinated provincial heat alert and response system (HARS)
- Identify and support populations most at risk of dying during extreme heat emergencies
- Implement extreme heat prevention and long-term risk mitigation strategies

BC Housing's priority areas for short and longer-term activities to respond to EHWS are:

1. **Increasing capacity within the non-profit housing sector.** Supporting the non-profit sector through educational activities, communication methods, tools, and templates, and resources such as cooling equipment and funding when available.
2. **Building organizational capacity within BC Housing.** Updating existing protocol for directly managed housing and developing a response protocol for non-profit managed housing (including roles & responsibilities and resources).
3. **Reducing risk of overheating and poor air quality due to wildfire smoke, in new construction and in existing buildings.** Ensuring that building designs and asset management strategies incorporate risks of EHWS, in both new construction and retrofits projects.
4. **Research and Engagement.** Undertaking research and engagement to better understand the needs of tenants and clients, and technical and non-technical solutions for the housing sector.
5. **Collaborating with stakeholders.** Engaging with external stakeholders to identify opportunities to share and leverage learning, resources and supports.

Additional details about each of the priority areas are included below in the Strategic Priorities and Activities section.

Since 2022, BC Housing has been working through the actions outlined in this plan in preparation for summer 2023. The majority of the actions are well underway or complete.

Engagement with Internal and External Partners and Stakeholders

BC Housing has conducted outreach and engagement over the past five years with external stakeholders. This has included such as the BC Non-Profit Housing Association (BCNPHA), individual community housing organizations, tenants, health authorities, the Ministry of Emergency Management and Climate Readiness, and municipalities.

Internally, EHWS planning has been conducted in partnership with key personnel from branches across the organization. This work included evaluating past and current activities and responses to the EHWS, to strengthen and advance protocols and systems going forward.

Some of the lessons identified from BC Housing's EHWS response efforts in recent years include:

1. To enable timely action and reduce duplication of efforts, the following are needed:
    - Clarity around roles and decision-making authority
    - Well defined lines of accountability and communication channels at all levels of BC Housing
    - Well defined lines of accountability and communication channels between BC Housing and our operating partners, and within non-profit housing organizations.

2. Tenant supports, instructions, and communication efforts need to be communicated and provided in ways that are:
    - Accessible for those with a range of disabilities
    - Culturally appropriate for Indigenous and racialized communities
    - Provided in languages other than English
    - Consider safety needs for those who might be fleeing violence or experiencing mental health challenges
3. Early identification of risks and vulnerabilities—ranging from specific buildings to individual residents—enables resources to be allocated and attention focused on the people and places where it is most needed.
4. Processes and guidelines need to be flexible enough to adapt to a diverse range of housing and building types, locations, and housing providers. This includes differences in neighbourhood characteristics and amenities, organizational structures and capacity, and most critically, resident needs and vulnerabilities.
5. Special supports, considerations, and planning are needed for non-profit providers, who may not have the resources to pay overtime or make unanticipated purchases during EHWS events.
6. Education about extreme weather risks and protocols before an EHWS event, as well as readily accessible information during the event is essential for the ability of front-line staff to respond appropriately.

Further engagement is needed, especially with people with disabilities and people identified by BC Centre for Disease Control (BCCDC) as the most at risk from extreme heat related illness. This engagement needs to be developed in a more strategic and transparent way to determine the next phase of BC Housing's EHWS Action Plan.

Data Analysis from BC Centre for Disease Control, the BC Coroners Service, and BC Housing

CORONERS SERVICE INVESTIGATION INTO THE 2021 HEAT-RELATED DEATHS

The BC Coroners Service conducted an investigation into deaths during the 2021 heat dome linked to extreme heat. In 2022, they provided BC Housing with the list of social housing buildings funded by BC Housing where such deaths occurred. This allowed for specific, although limited analysis of key risk factors for social housing. The analysis and findings are presented in a separate report: *Extreme Heat and Buildings: An Analysis of the 2021 Heat Dome Related Deaths in Community Housing in British Columbia*, June 2022.[7]

ADDITIONAL ANALYSIS OF THE 2021 HEAT-RELATED DEATHS

Analysis of mortality during B.C.'s extreme heat events of 2021 (June 18 to August 12, 2021) provides important considerations for protective and preventative actions going forward. The following is a summary of key risk factors associated with an increase in heat-related illness and mortality during the extreme heat events of 2021. It is drawn from the BC Coroners Service *Heat-Related Deaths – Knowledge Update* (Nov. 1, 2021)[8] , BCCDC webinar *Mortality During the Catastrophic 2021 Heat Dome* (Nov. 2, 2021)[9], and the Extreme Heat and Human Mortality: A Review of Heat-Related Deaths in B.C. in Summer 2021 (Jun. 7, 2022).[10]

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[7] https://www.bchousing.org/sites/default/files/media/documents/Extreme-Heat-Report%2B2022.pdf

[8] BC Coroners Service (BCCS), Ministry of Public Safety & Solicitor General, Heat-Related Deaths – Knowledge Update, Nov.1, 2021; https://www2.gov.bc.ca/assets/gov/birth-adoption-death-marriage-and-divorce/deaths/coroners-service/statistical/heat_related_deaths_in_bc_knowledge_update.pdf.

[9] ***Mortality during the catastrophic 2021 heat dome*, Webinar (Nov. 2, 2021), BC Centre for Disease Control. Presenter: Dr. Sarah Henderson; https://nexuswebcast.mediasite.com/Mediasite/Showcase/bc-cdc-showcase.

[10] BC Coroners Service (BCCS), Ministry of Public Safety & Solicitor General, Extreme Heat and Human Mortality: A Review of Heat-Related Deaths in B.C. in Summer 2021, Jun. 7, 2022; https://www2.gov.bc.ca/assets/gov/birth-adoption-death-marriage-and-divorce/deaths/coroners-service/death-review-panel/extreme_heat_death_review_panel_report.pdf

BUILT ENVIRONMENT RISK FACTORS

96% of heat-related deaths in B.C. in 2021 occurred inside a residence. The indoor temperature can often be higher than the outdoor temperature during extreme heat events. Many buildings do not cool down at night and indoor heat continues to rise due to a compounding effect that comes from each additional hot day.

- **Cooling:** Key risk factor as identified by the BC Coroners is a lack of air conditioning in residential units.
- **Solar heat gain:** Buildings that allow for a high-level of solar heat gain through windows due to window type or building orientation are at higher risk of overheating.
- **Air systems:** Inadequate air ventilation and air distribution systems that are not maximized to provide passive cooling in individual units contribute to higher indoor temperatures.
- **Urban heat island effect:** Buildings located in urban settings, with a dense concentration of pavement and other hard surfaces that absorb and retain heat, experience significantly higher temperatures than buildings located in open, green spaces.
- **Green space:** No easy access to green spaces. BCCDC determined that most of the deaths occurred in buildings that were 100 meters or more away from green space.
- **Shade:** Lack of passive cooling measures such as external shading.

BC CENTRE FOR DISEASE CONTROL RISKS FACTORS

The following have been identified by the BCCDC as risk factors that contribute to heat related illness and mortality:

- **Social isolation:** More than half of those who died in the 2021 heat dome lived alone.
- **Age:** 69% of heat-related deaths in BC in 2021 occurred in people over the age of 70
- **Mental health:** Having schizophrenia was associated with a three times higher risk. Those struggling with substance use, depression, or anxiety were also associated with having a higher risk.
- **Building characteristics:** Lack of cooling (passive and mechanical), ventilation, and window coverings
- **Heat islands/geographic location:** A 5% increase in tree cover within a 100-meter radius of a site is associated with a 9% reduction in extreme heat risk (all other things being equal)

As of 2023, unpublished research from the BCCDC has also uncovered that poverty was the biggest risk factor for heat related death during the 2021 heat dome.[11]

[11] Summer now means fear for some, as study shows poverty brought biggest risk of death in B.C. heat dome | CBC News

GEOGRAPHIC TRENDS

According to the BC Coroners Service's Knowledge Update, 52% of heat-related deaths during the 2021 Heat Dome occurred in the Fraser Health Authority region, followed by Vancouver Coastal Health region (23%). The three townships that experienced the highest number of deaths are Vancouver, Surrey, and Burnaby.[12]

INDOOR TEMPERATURES AND HEAT-RELATED ILLNESS AND MORTALITY

The BCCDC webinar noted that heat-related deaths and illness are the result of high indoor temperatures, which follow peak outdoor temperatures. Since indoor temperatures do not drop in the evenings as occurs outdoors, each day begins with a higher baseline. This leads to a cumulative increase in indoor temperatures during extended heat waves. This aligns with the Coroner's Services findings which indicated that some of the 2021 deaths occurred in the days after those with the highest temperatures.

Extreme Heat & Wildfire Smoke (EHWS) Response: Strategic Priorities and Activity Areas

The following priorities and key activities are components of a comprehensive strategy to prevent extreme heat and wildfire smoke related illness and death. These priorities focus on resident populations within the community housing sector and emergency shelter system. Special emphasis is placed on people who are marginalized, and those from equity-seeking and rights-seeking groups. The priorities are organized in the following areas:

1. Increasing capacity within the non-profit housing sector.
2. Building organizational capacity within BC Housing.
3. Reducing risk of overheating and poor air quality due to wildfire smoke, in new construction and in existing buildings.
4. Research and engagement.
5. Collaborating with stakeholders.

The tables below present more detail on BC Housing's activities in each of the five areas. For this July 2023 update, activities have been categorized as "complete", "annual and ongoing" or "delayed/in progress".

[12] BC Coroners Service (BCCS), Ministry of Public Safety & Solicitor General, Heat-Related Deaths – *Knowledge Update*, Nov.1, 2021; https://www2.gov.bc.ca/assets/gov/birth-adoption-death-marriage-and-divorce/deaths/coroners-service/statistical/heat_related_deaths_in_bc_knowledge_update.pdf.

1. Increasing capacity within the non-profit housing sector

Supporting the non-profit sector through educational activities; communication methods, tools, and templates; and resources such as cooling equipment and funding when available.

ACTIVITY	KEY DATES	STATUS FOR 2022	STATUS FOR 2023
COMPLETE			
1. Develop communication and training plan for BC Housing staff and Non-profit housing providers.	Spring and Summer 2022	Complete	Ongoing implementation includes annual webinars and communication through BC Housing channels (newsletter, social media, etc.)
2. Develop IT solution/online form for Non-profit housing providers to request items/equipment from BC Housing.	Spring 2022	Complete	In place for use if needed. Non-profits are directed to purchase their own items, if possible, with funding if required.
3. Communicate details on management and distribution of the inventory of cooling items to the non-profit sector.	Spring and Summer 2022	Complete	Non-profits are directed to purchase their own items, if possible, with funding if required.
4. Review and update all tenant communication materials based on feedback received from vulnerable people and equity seeking groups.	Spring 2022	Complete	Additional review undertaken in 2023 by internal working group. Communication materials will be updated in future based on feedback from focus groups conducted at BC Housing sites.
5. Within the BC Housing Operational Review process, require inclusion of an EHWS preparedness plans for non-profit housing partners.	Spring/Summer 2022	Complete	N/A
6. Develop an internal and external Communications plan.	Winter 2021/Spring 2022	Complete	Will be updated as necessary.

ANNUAL AND ONGOING			
7. Offer workshops on how to create an EHWS Response plan at BCNPHA RENT sessions; in collaboration with Medical Health Officers from each region.	Annual and ongoing	Workshops offered in Nanaimo & New Westminster and Prince George in Spring/Summer 2022.	Workshops offered in Victoria and Surrey in Spring 2023. Workshop offered in Prince George in June 2023.
8. Host webinars for the Non-profit housing sector in collaboration with BCNPHA and Vancouver Coastal Health, including presentations from a Medical Health Officer and three different non-profit housing and shelter providers.	Annual and ongoing	Webinar hosted in April 2022. Recording available at BC Housing's & BCNPHA websites.	Webinar hosted in April 2023. Recording available at BC Housing's & BCNPHA websites.
9. Procure, store, and manage an inventory of cooling and air purifying items (such as portable AC units, air purifiers, fans, cooling kits, and others).	Annual and ongoing	Emergency inventory was in place in 2022. Non-profits were encouraged to purchase their own equipment with funding support from BCH.	Emergency inventory re-stocked in 2023. Non-profits are encouraged to purchase their own equipment with funding support from BCH.
10. On-going collaboration with EMCR, Health Authorities (including BC HEAT Committee) and key municipalities on their Heat Alert and Response Systems (HARS).	Annual and ongoing	Collaboration occurred in 2022.	Ongoing in 2023.
11. Provide easy access to existing documents, tools, communication materials and resources available for the frontline staff within BCH and community sector organizations.	Spring 2022	Complete	Available on BCH website and updated as needed.
12. Develop an internal and external Communications plan.	Winter 2021/ Spring 2022	Complete	Will be updated as necessary.
DELAYED/IN PROGRESS			
13. Develop resources enabling the Non-profit housing providers to conduct their own high-level cooling audits of their buildings.	Spring 2022	In progress/delayed	Pilot underway at a BC Housing site which could be used at NP sites in the future.

2. Building organizational capacity for EHWS emergency response within BC Housing

Updating existing protocol for directly managed housing and developing response protocols for non-profit managed housing (including roles & responsibilities and resources).

ACTIVITY	KEY DATES	STATUS FOR 2022	STATUS FOR 2023
COMPLETE			
1. Updating *The Extreme Heat and Wildfire Smoke Emergency Response Protocol for Directly Managed Buildings* across the province.	March 2022	Completed. The updated protocol includes distribution of portable fans and cooling kits; updated tip sheets translated as needed; resident info sessions; application of window tint to reduce solar heat gains.	Additional updates in 2023: wellness checks now offered to all BC Housing directly managed residents who would like them during heat alerts, inclusion of additional staff to assist with wellness checks.
2. Developing *The Extreme Heat and Wildfire Smoke Emergency Response Protocol* for supporting the non-profit housing providers.	Spring 2022	Complete	Will be updated as necessary.
3. Establishment of the EHWS Emergency Operations Centre with corresponding action items and delegated authority.	July 2021	Complete. Revised based on the new EHWS Action plan.	N/A
4. Clarifying roles and responsibilities within BC Housing, including processes for ordering, tracking, and storing equipment.	Spring 2022	Complete	N/A
5. Roll out of the new Operations Review requirement for non-profit housing operators to have an EHWS Emergency Response Plans.	Fall 2022	Complete	N/A
ANNUAL AND ONGOING			
6. Training and education.	Annual and ongoing	Internal webinar in June 2022 on Extreme Heat and Wildfire Smoke Response: Protecting Tenants and Staff	Internal webinar in June 2023 on Extreme Heat and Wildfire Smoke Response: Protecting Tenants and Staff

7. Annual post-summer evaluation and updates of the planning and response protocol focusing on equity-denied and vulnerable groups, costs tracking, demands on staff and resources, innovative solutions for tapping into community resources, etc.	Annual and ongoing	Internal evaluation of BC Housing's Extreme Heat Response held in October 2022.	Evaluation to be planned for October 2023.
DELAYED/IN PROGRESS			
8. Identifying separate budget allocations for EHWS for future funding requests, tracking and reporting.	Fall 2022	In Progress. One time funding identified for purchase of equipment.	In Progress. One time funding identified for purchase of equipment.

3. Reducing risk of overheating and poor air quality due to wildfire smoke, in new construction and existing buildings

Ensuring that building designs and asset management strategies incorporate risks of EHWS, in both new construction and retrofits projects.

ACTIVITY	KEY DATES	STATUS FOR 2022	STATUS FOR 2023
COMPLETE			
1. All renovation and development projects submitted for Executive Committee approval to include a section titled "Extreme Heat & Smoke Response"	Fall 2022	In Progress	Complete. Executive Committee Submissions now have a "Thermal Safety/Cooling Strategies" section.
2. Updates of BC Housing Design Guidelines and Construction Standards pertaining to: • Requirements related to passive cooling measures and addressing the risks of overheating • Considerations of future climate projections in building design (e.g. use of future climate files in energy modelling) • Requiring an adequate (HEPA or MERV 13+) filtration during a poor air quality due to wildfire smoke events. Construction Services, immediate and on-going	Spring 2022	Completed. Refer to Technical Bulletin No. 3: Technical Bulletin No. 3: Section 2 and 4 (2023)	N/A
ANNUAL AND ONGOING			
3. Provide training to BCH Development and Asset Strategies staff and construction sector partners (i.e. design and development consultants) on the risks of overheating and possible solutions.	Ongoing	Internal webinar in June 2022 on Extreme Heat and Wildfire Smoke Response: Protecting Tenants and Staff	Internal webinar in June 2023 on Extreme Heat and Wildfire Smoke Response: Protecting Tenants and Staff Building adaptation pilots ongoing since 2022 provide an education opportunity for BCH staff and sector partners.
4. Incorporating cooling measures as a requirement into building upgrades and retrofits paying particular attention to passive elements.	Ongoing	On track. Cooling was assigned higher priority in asset management framework.	Ongoing.

5. Identify most effective, low-carbon, resilient technical solutions, and their associated costs, in order to request adequate level of funding for cooling and air filtration.	Spring 2022	Complete. Budget request to increase funding levels for new construction to increase cooling and air filtration.	Ongoing pilots focusing on Total Cost of Ownership for resilience measures. Study completed on passive cooling measures.
6. Pilot existing risk assessment tools (MBAR/IBAMA) on new constructions and existing building projects.	Ongoing	Ongoing	3 IBAMA pilots (for new construction) in progress: Vienna House, Rosewood and səlilwətaɬ (Tsleil-Waututh Nation). Work is in development for existing buildings, particularly focusing on reducing risk of overheating & poor IAQ from smoke, in new construction. Resilience tools are being developed to audit existing buildings.
DELAYED/IN PROGRESS			
7. Develop resilient buildings screening (risk assessment) tool.	March 2023	In progress	Tool has been developed and will be piloted in 2023.
8. Conduct portfolio level climate change risk assessment and integrate it into the capital planning process and construction standards. Phase 1.	March 2023	Delayed. Discussion with the Real Property Division re the use of their portfolio-wide level climate multi-hazard tool. Awareness of need for funding for further tool development.	Preliminary roadmap in development.
9. Consider the risks of overheating and poor air quality due to wildfires on new construction projects, including: review of all projects under development to assess their current cooling strategies (active, portable, and passive)	Ongoing	In progress	Information about whether projects meet overheating hours tracked for new construction projects. Additional processes/data required to track active cooling accurately in all new construction. Portable cooling currently not tracked in new construction.

4. Research and Engagement

Undertaking research and engagement to better understand the needs of the tenants and clients, and solutions for the housing sector, and to ensure continuous improvement of responses over time.

ACTIVITY	KEY DATES	STATUS FOR 2022	STATUS FOR 2023
COMPLETE			
1. Survey of non-profit housing providers to understand the needs of the sector, in collaboration with BCNPHA.	Spring 2022	Complete	N/A
2. Analysis of the data from the coroner's office on deaths in social housing during the heat dome of 2021.	Spring 2022	Complete	N/A
3. Research on indoor air temperatures during extreme heat, led by the University of Waterloo. Summer 2022 monitoring, Fall 2022 evaluation.	Fall 2022	Complete	N/A
4. Student research on policy options for responding to extreme heat and poor air quality due to wildfire smoke for the non-profit housing sector, led by Simon Fraser University.	Spring 2022	Complete	N/A
5. Technical research on costing of cooling solutions and air filtration.	April 2022	Complete	N/A
6. Air filtration systems research.	Spring 2022	Complete	N/A
7. Resilient building standard research – Phase 1.	Spring 2022	Complete	N/A
8. Provide recommendations to the BC Government, Ministry and Treasury Board.	2022 (various dates)	Complete	N/A
9. Develop resilient building standards – Phase 2.	Fall 2022	Complete	Standards included in RFPs.
ANNUAL AND ONGOING			
10. Set-up a post-summer evaluation process on the effectiveness of this response protocol informed by mortality and morbidity data from health organizations and Coroners Services, EDIB and best practices.	Annual and Ongoing	Evaluation conducted in Fall 2022.	Will be an annual evaluation in Fall.
DELAYED/IN PROGRESS			
11. Develop and implement an engagement plan with tenants and people with lived experience.	March 2023	In progress	In progress. Engagement consultants hired. Focus groups in progress at five directly managed sites.
12. Create a research plan specific to EHWS needs.	Winter 2022	Paused	Paused. Individual research projects ongoing but not currently contained in a research plan.

5. Collaborating with stakeholders

Engaging with external stakeholders to identify opportunities to share and leverage learning, resources and supports.

ACTIVITY	KEY DATES	STATUS FOR 2022	STATUS FOR 2023
COMPLETE			
1. BC Extreme Heat Framework Working Group led by EMCR.	Fall 2022	Complete	N/A
2. Set-up communication channels for feedback for residents experiencing extreme heat and wildfire smoke in their Community Housing.	Summer 2022	Complete. BC Housing residents can contact tenant support workers.	Survey and focus groups in 2023 at BC Housing managed sites provided additional avenues for feedback.
ANNUAL AND ONGOING			
3. Monthly meetings with City of Vancouver, more frequent starting in May.	Annual and Ongoing	Ongoing	Ongoing
4. Advisory relationships with BCCDC and Medical Health Officers.	Annual and Ongoing	Ongoing	Ongoing
5. Bi-weekly meetings with the BC Health Effects of Anomalous Temperatures (BC HEAT) Coordinating Committee.	Annual and Ongoing	Ongoing	Ongoing
6. Engagement with other municipalities to support social housing tenants and unhoused populations.	Annual and Ongoing	Ongoing	Ongoing

Executive Leads on Extreme Heat & Wildfire Smoke Response

EXECUTIVE ACCOUNTABILITY AREAS	POSITION
• **Overall coordination & response** • **Research** • **Collaboration and engagement**	**VP Strategic Business Operations and Performance**
• **Reducing risk in new construction and existing buildings**	VP Development and Asset Strategies
• **Increasing capacity in the non-profit affordable housing sector** • **Build organizational capacity for EHWS emergency response within BCH directly managed portfolio**	VP Operations
• **Communications** • **Collaboration and engagement**	VP Equity and Corporate Affairs
• **Financial oversight & funding requests to government**	VP Finance

Planning and Response Annual Cycle

TIME	KEY ACTIVITIES
September – December	Internal BCH Planning Activities, Research
Jan – March	Engagement, Development & approval of the Emergency Response Protocol, Purchase of 'cooling items' inventory, Research, Update of BCH Design Guidelines & Construction Standards
April – May	Emergency response plan roll-out
May – September	Emergency response plan implementation
September – March & ongoing	Response plan evaluation and updates

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